

Application No.: 09/710,605
Preliminary Amendment dated: February 23, 2006
Reply to Final Office Action of: September 23, 2005

IN THE CLAIMS:

Please amend the claims as indicated. A complete set of the claims is included below, reflecting added subject matter (*underlining*) and deleted subject matter (*strikethrough*), as well as the current status of each claim. This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A method for synchronizing data records between plural databases comprising the steps of:
 - a) designating a first database as a source database and a second database as a target database;
 - b) determining a state of a first modification flag and a second modification flag, said first modification flag contained in a first data record in said source database, said second modification flag contained in a first data record in said target database, wherein said first modification flag indicates that said first data record in said source database has been modified and wherein a value of said first modification flag, indicative of a particular event, is set upon an occurrence of said particular event, wherein said second modification flag indicates that said first data record in said target database has been modified and wherein a value of said second modification flag, indicative of a second particular event, is set upon an occurrence of said second particular event;
 - c) provided that said first modification flag is set and said second modification flag is not set, propagating said first data record in said source database to said first data record in said target database;
 - d) provided that said first modification flag is not set, comparing a first modification count contained in said first data record in said source database with a second modification count contained in said first data record in said target database, said first and second modification counts each being a value indicating how many times said first data record in said source database and said first data record in said target database has been modified respectively;

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- e) provided that said first modification count has a higher value than said second modification count, propagating said first data record in said source database to said first data record in said target database, wherein said steps a) through e) can be completed without comparing raw data of said first data record and said corresponding data record;
- f) incrementing said second modification count to said high value of said first modification count;
- g) repeating said steps a) through f) until all of said data records in said source database have been processed; and
- h) re-designating said second database as said source database and said first database as said target database; and
- i) performing said steps a) through g) until all of said data records in said source database have been processed.

2-4. (Canceled).

5. (Previously Presented) The method as recited in Claim 1 wherein said step c) further comprises clearing said first modification flag.

6. (Previously Presented) The method as recited in Claim 1 wherein said step c) comprises the steps of:

creating a new data record in said target database according to said first data record in said source database, provided that said first modification flag is set to indicate that said first data record is new in said source database and that said first data record does not exist in said target database; and

clearing said first modification flag.

7. (Previously Presented) The method as recited in Claim 1 wherein said step c) comprises the step of marking said first data record as deleted in said target database, provided that said first modification flag is set to indicate that said first data record has been deleted from

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said source database and that said first data record exists and is not already marked as deleted in said target database.

8. (Original) The method as recited in Claim 1 wherein said first database and said second database reside in different host systems.

9. (Original) The method as recited in Claim 1 wherein said first database resides in a personal digital assistant (PDA).

10. (Original) The method as recited in Claim 1 wherein said second database resides in a computer system to which a personal digital assistant (PDA) can be coupled via a cradle device.

11. (Currently Amended) A computer system comprising a processor coupled to a bus and a memory unit coupled to said bus, said memory unit having stored therein instructions that when executed implement a method for synchronizing data records between databases, said method comprising the steps of:

- a) designating a first database as a source database and a second database as a target database, said first database residing in said memory unit of said computer system;
- b) determining a state of a first modification flag and a second modification flag, said first modification flag contained in a first data record in said source database, said second modification flag contained in a first data record in said target database, wherein said first modification flag indicates that said first data record in said source database has been modified and wherein a value of said first modification flag, indicative of a particular event, is set upon an occurrence of said particular event, wherein said second modification flag indicates that said first data record in said target database has been modified and wherein a value of said second modification flag, indicative of a second particular event, is set upon an occurrence of said second particular event;

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- c) provided that said first modification flag is set and said second modification flag is not set, propagating said first data record in said source database to said first data record in said target database;
- d) provided that said first modification flag is not set, comparing a first modification count contained in said first data record in said source database with a second modification count contained in said first data record in said target database, said first and second modification counts each being a value indicating how many times said first data record in said source database and said first data record in said target database has been modified respectively;
- e) provided that said first modification count has a higher value than said second modification count, propagating said first data record in said source database to said first data record in said target database, wherein said steps a) through e) can be completed without comparing raw data of said first data record and said corresponding data record;
- f) incrementing said second modification count to said high value of said first modification count;
- g) repeating steps a) through f) until all of said data records in said source database have been processed;
- h) re-designating said second database as said source database and said first database as said target database; and
- i) performing said steps a) through g) until all of said data records in said source database have been processed.

12-14. (Canceled).

15. (Previously Presented) The computer system as recited in Claim 11 wherein said step c) of said method further comprises clearing said first modification flag.

16. (Previously Presented) The computer system as recited in Claim 11 wherein said step c) of said method comprises the steps of:

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creating a new data record in said target database according to said first data record in said source database, provided that said first modification flag is set to indicate that said first data record is new in said source database and that said first data record does not exist in said target database; and

clearing said first modification flag.

17. (Previously Presented) The computer system as recited in Claim 11 wherein said step c) of said method comprises the step of marking said first data record as deleted in said target database, provided that said first modification flag is set to indicate that said first data record has been deleted from said source database and that said first data record exists and is not already marked as deleted in said target database.

18. (Original) The computer system as recited in Claim 11 wherein said second database does not reside in said computer system.

19. (Original) The computer system as recited in Claim 11 wherein said computer system is a personal digital assistant (PDA).

20. (Original) The computer system as recited in Claim 11 wherein said computer system is coupled to another computer system in which said second database resides.

21. (Currently Amended) A computer readable medium having embodied therein computer readable code for causing a computer system to implement a method for synchronizing data records between databases, said method comprising the steps of:

- a) designating a first database as a source database and a second database as a target database;
- b) determining a state of a first modification flag and a second modification flag, said first modification flag contained in a first data record in said source database, said second modification flag contained in a first data record in said target database, wherein

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said first modification flag indicates that said first data record in said source database has been modified and wherein a value of said first modification flag, indicative of a

particular event, is set upon an occurrence of said particular event, wherein said second

modification flag indicates that said first data record in said target database has been

modified and wherein a value of said second modification flag, indicative of a second

particular event, is set upon an occurrence of said second particular event;

c) provided that said first modification flag is set and said second modification flag
is not set, propagating said first data record in said source database to said first data record in said target database;

d) provided that said first modification flag is not set, comparing a first modification count contained in said first data record in said source database with a second modification count contained in said first data record in said target database, said first and second modification counts each being a value indicating how many times said first data record in said source database and said first data record in said target database has been modified respectively;

e) provided that said first modification count has a higher value than said second modification count, propagating said first data record in said source database to said first data record in said target database, wherein said steps a) through e) can be completed without comparing raw data of said first data record and said corresponding data record;

f) incrementing said second modification count to said higher value of said first modification count;

g) repeating said steps a) through f) until all of said data records in said source database have been processed;

h) re-designating said second database as said source database and said first database as said target database; and

i) performing steps a) through g) repeatedly until all of said data records in said source database have been processed.

22-24. (Canceled).

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25. (Previously Presented) The computer readable medium as recited in Claim 21 wherein said step c) of said method further comprises clearing said first modification flag.

26. (Previously Presented) The computer readable medium as recited in Claim 21 wherein said step c) of said method comprises the steps of:

creating a new data record in said target database according to said first data record in said source database, provided that said first modification flag is set to indicate that said first data record is new in said source database and that said first data record does not exist in said target database; and

clearing said first modification flag.

27. (Previously Presented) The computer readable medium as recited in Claim 21 wherein said step c) of said method comprises the step of marking said first data record as deleted in said target database, provided that said first modification flag is set to indicate that said first data record has been deleted from said source database and that said first data record exists and is not already marked as deleted in said target database.

28. (Original) The computer readable medium as recited in Claim 21 wherein said first database and said second database reside in different host systems.

29. (Original) The computer readable medium as recited in Claim 21 wherein said first database resides in a personal digital assistant (PDA).

30. (Original) The computer readable medium as recited in Claim 21 wherein said second database resides in a computer system to which a personal digital assistant (PDA) can be coupled via a cradle device.

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31. (New) A method for synchronizing data records between plural databases comprising the steps of:

- a) designating a first database as a source database and a second database as a target database;
- b) determining a state of a first modification flag contained in a first data record in said source database, wherein said first modification flag indicates that said first data record in said source database has been modified and wherein a value of said first modification flag, indicative of a particular event, is set upon an occurrence of said particular event;
- c) provided that said first modification flag is set, propagating said first data record in said source database to said first data record in said target database;
- d) provided that said first modification flag is not set, comparing a first modification count contained in said first data record in said source database with a second modification count contained in said first data record in said target database, said first and second modification counts each being a value indicating how many times said first data record in said source database and said first data record in said target database has been modified respectively;
- e) provided that said first modification count has a higher value than said second modification count, propagating said first data record in said source database to said first data record in said target database, wherein said steps a) through e) can be completed without comparing raw data of said first data record and said corresponding data record;
- f) incrementing said second modification count to said high value of said first modification count;
- g) repeating said steps a) through f) until all of said data records in said source database have been processed; and
- h) re-designating said second database as said source database and said first database as said target database; and
- i) performing said steps a) through g) until all of said data records in said source database have been processed,

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wherein said step c) comprises the step of marking said first data record as deleted in said target database, provided that said first modification flag is set to indicate that said first data record has been deleted from said source database and that said first data record exists and is not already marked as deleted in said target database.

32. (New) A computer system comprising a processor coupled to a bus and a memory unit coupled to said bus, said memory unit having stored therein instructions that when executed implement a method for synchronizing data records between databases, said method comprising the steps of:

- a) designating a first database as a source database and a second database as a target database, said first database residing in said memory unit of said computer system;
- b) determining a state of a first modification flag contained in a first data record in said source database, wherein said first modification flag indicates that said first data record in said source database has been modified and wherein a value of said first modification flag, indicative of a particular event, is set upon an occurrence of said particular event;
- c) provided that said first modification flag is set, propagating said first data record in said source database to said first data record in said target database;
- d) provided that said first modification flag is not set, comparing a first modification count contained in said first data record in said source database with a second modification count contained in said first data record in said target database, said first and second modification counts each being a value indicating how many times said first data record in said source database and said first data record in said target database has been modified respectively;
- e) provided that said first modification count has a higher value than said second modification count, propagating said first data record in said source database to said first data record in said target database, wherein said steps a) through e) can be completed without comparing raw data of said first data record and said corresponding data record;

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f) incrementing said second modification count to said high value of said first modification count;
g) repeating steps a) through f) until all of said data records in said source database have been processed;
h) re-designating said second database as said source database and said first database as said target database; and
i) performing said steps a) through g) until all of said data records in said source database have been processed,
wherein said step c) of said method comprises the step of marking said first data record as deleted in said target database, provided that said first modification flag is set to indicate that said first data record has been deleted from said source database and that said first data record exists and is not already marked as deleted in said target database.

33. (New) A computer readable medium having embodied therein computer readable code for causing a computer system to implement a method for synchronizing data records between databases, said method comprising the steps of:

- a) designating a first database as a source database and a second database as a target database;
- b) determining a state of a first modification flag contained in a first data record in said source database, wherein said first modification flag indicates that said first data record in said source database has been modified and wherein a value of said first modification flag, indicative of a particular event, is set upon an occurrence of said particular event;
- c) provided that said first modification flag is set, propagating said first data record in said source database to said first data record in said target database;
- d) provided that said first modification flag is not set, comparing a first modification count contained in said first data record in said source database with a second modification count contained in said first data record in said target database, said first and second modification counts each being a value indicating how many times said first data

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record in said source database and said first data record in said target database has been modified respectively;

e) provided that said first modification count has a higher value than said second modification count, propagating said first data record in said source database to said first data record in said target database, wherein said steps a) through e) can be completed without comparing raw data of said first data record and said corresponding data record;

f) incrementing said second modification count to said higher value of said first modification count;

g) repeating said steps a) through f) until all of said data records in said source database have been processed;

h) re-designating said second database as said source database and said first database as said target database; and

i) performing steps a) through g) repeatedly until all of said data records in said source database have been processed,

wherein said step c) of said method comprises the step of marking said first data record as deleted in said target database, provided that said first modification flag is set to indicate that said first data record has been deleted from said source database and that said first data record exists and is not already marked as deleted in said target database.